

## ABSTRACT

In an electromagnetic induction type speaker apparatus, individual constants are set in such a manner that the following formula is satisfied

*Sub B<sup>12</sup>/5*

$$\frac{N \times (R_1 \times R_2)^{1/2}}{20000} > \frac{1}{(2\pi \times L_1 \times (1 - k^2)^{1/2})}$$

where  $R_1$  is the DC resistance of a primary coil 15;  $L_1$  is the inductance of the primary coil 15;  $N$  is the number of turns of the primary coil 15;  $R_2$  is the DC resistance of the secondary coil 18;  $L_2$  is the inductance of the secondary coil 18; and  $k$  is the coupling coefficient of the primary coil 15 and the secondary coil 18.

In addition, the constants  $L_1$  and  $L_2$  are selected in such a manner that the ratio of the inductance  $L_1$  and the inductance  $L_2$  becomes equal to the ratio of the DC resistance  $R_1$  and the DC resistance  $R_2$ .